
वस्त्रादि — सूती धागे का अपशिष्ट — विशिष्टि
(दूसरा पुनरीक्षण)

**Textiles — Cotton Yarn Waste —
Specification**
(*Second Revision*)

ICS 59.080.20

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FOREWORD

This Indian Standard (Second Revision) was adopted by the Bureau of Indian Standards, after the draft finalized by the Man-Made Fibres, Cotton and their Products Sectional Committee had been approved by the Textiles Division Council.

Cotton yarn waste, a bye-product of cotton spinning industry, is used for cleaning machines and instruments. After hand picking the hard and twisted threads, loops, metallic wires, lags, etc the waste yarn is teased adequately to open out the lumps and to remove embedded impurities like dirt, grit, etc.

This standard was originally published in 1969 and was subsequently revised in 1980. The standard has again been revised to incorporate the following changes:

- a) BIS certification marking clause has been modified.
- b) References to Indian Standards have been updated.

The composition of the Committee responsible for the formulation of this standard is given in Annex C.

For the purpose of deciding whether a particular requirement of this standard is complied with, the final value, observed or calculated, expressing the result of a test or analysis shall be rounded off in accordance with IS 2 : 2022 'Rules for rounding off numerical values (*second revision*)'. The number of significant places retained in the rounded off value should be the same as that of the specified value in this standard.

Indian Standard
TEXTILES — COTTON YARN WASTE — SPECIFICATION
(Second Revision)

1 SCOPE

1.1 This standard prescribes the requirements of two types of teased cotton yarn waste.

1.2 This standard does not specify the general appearance, feel, shade, finish etc of cotton yarn waste (*see* also **4.2**).

2 REFERENCES

2.1 The standards listed in Annex A contain provisions which, through reference in this text, constitute provisions of this standard. At the time of publication, the editions indicated were valid. All standards are subject to revision and parties to agreements based on this standard are encouraged to investigate the possibility of applying the most recent edition of the standards indicated in Annex A.

3 TYPES

3.1 Cotton yarn waste shall be of two types:

Type 1 — White, consisting of well teased, undyed and unsized clean cotton yarn waste of normal twist

Type 2 — Coloured, consisting of well-teased, dyed and undyed cotton yarn waste. The proportion of dyed yarn should not be less than 50 percent

4 GENERAL REQUIREMENTS

4.1 The cotton yarn waste should be well teased and blended. It should be reasonably free from non-textile substances like dirt, grit, wooden chips, bidi ends, papers, feathers, etc and also free from textile impurities such as soft waste (loose untwisted strands), hard twisted, folded or sized yarn, rags, etc.

4.2 The cotton yarn waste shall be free from loading matter such as lime, barytes, china clay, etc. It shall not look oily or dirty and have a clear appearance and free from lumps.

4.3 The cotton yarn waste shall consist substantially of absorbent cotton yarns. Staple fibre yarn (viscose rayon) up to 20 percent may be permitted, if not stated otherwise. Traces of man-made fibres yarn other than staple yarn are also permissible.

5 SPECIFIC REQUIREMENTS

5.1 The cotton yarn waste shall comply with the requirements of Table 1.

5.2 Sealed Sample — The supply shall be in conformity with the sample, agreed between buyer and seller and sealed accordingly, in respect of indeterminable characteristics like general appearance, shade etc.

Table 1 Specific Requirements of Kapok
(Clauses 5.1)

Sl No.	Characteristic	Requirement		Method of Test, Ref to
		Type 1	Type 2	
(1)	(2)	(3)	(4)	(5)
i)	Moisture content, percent, <i>Max</i>	9	9	IS 199
ii)	Oil content, percent, <i>Max</i>	2	4	IS 199
iii)	Size, starch, etc, percent, <i>Max</i>	3	6	IS 199
iv)	Dirt, grit, etc, percent, <i>Max</i>	1	2	B-1
v)	Textile impurities (rags, twines), percent, <i>Max</i>	Nil	2	B-2
vi)	Non-textile impurities (wooden chips, bidi ends, paper, feather, leather, etc) percent, <i>Max</i>	Nil	0.5	B-2
vii)	Metallic impurities (wires, etc)	Nil	Nil	-
viii)	Soft waste, percent, <i>Max</i>	2	4	B-3
ix)	Coloured yarn, percent, <i>Min</i>	Nil	50	B-4
x)	Man-made fibres, percent, <i>Max</i>	20	20	IS 1889 (Part 1)

6 PACKING

6.1 Cotton yarn waste shall be packed in bales having net mass of 25 or 50 kg as agreed. The cotton yarn waste shall be lightly pressed to form a rectangular and wrapped with an inner layer of polyethylene film (*see* IS 2508) of 40 microns thickness, minimum or alternatively kraft paper (*see* IS 1397) waterproof paper (*see* IS 1398) and an outer layer of heavy cee cloth (*see* IS 3751) or equivalent hessian. The overlapping of the packing materials shall be at least 10 cm so as to ensure full protection to the contents of the bale.

The overlapping of the outer layer of hessian shall be such that it could be properly and securely sewn round the bale. The bale shall be stitched with double 3-ply jute twine with not less than 6 stitches per dm taking care not to pierce the inner layer of the bale during stitching. Sufficient hessian shall be pulled out at each corner to form ears-of about 15 cm in length. The bale shall be stripped with at least 2 bailing hoops to ensure safety and prevent pilferage of the contents during transit/storage. The bales shall not be press-packed.

7 MARKING

7.1 The bale shall be marked with the following information in a legible manner using indelible ink:

- a) Name of the material;
- b) Type of waste;
- c) Net and gross mass; and
- d) Name, initials or trade-mark, if any, of the supplier.

7.2.1 BIS Certification Marking

The product(s) conforming to the requirements of this standard may be certified as per the conformity assessment schemes under the provisions of the *Bureau of Indian Standards Act, 2016* and the Rules and Regulations framed thereunder, and the product(s) may be marked with the Standard Mark.

8 SAMPLING

8.1 Lot — The quantity of cotton yarn waste of the same type delivered to a buyer against a despatch note shall constitute a lot.

8.2 Unless otherwise agreed to between the buyer and the seller, the number of bales to be selected at random from a lot shall be according to Table 2. To ensure the randomness of selection, methods given in IS 4905 shall be followed.

Table 2 No. of Bales to be selected
(Clause 8.2)

Sl No.	No. of Bales In the Lot	No. of Bales to be Selected
(1)	(2)	(3)
i)	Up to 50	2
ii)	51 to 100	4
ii)	101 to 150	7
iv)	151 to 300	14
v)	301 and above	21

8.3 From each of the bale selected according to **8.2**, the sample shall be drawn from at least five laps in the bale.

8.4 The number of tests to be carried out shall be equal to the number of bales selected if the number is less than or equal to 7. When the number of bales selected are more than 7, samples from two or three bales for lot size of up to 300 and above 300 respectively, shall be mixed together thoroughly to form a composite sample. The number of samples tested in this case shall be 7.

8.5 Criteria for Conformity — The lot shall be considered in conformity to the requirements of this standard, if all the samples tested satisfy the various requirements.

ANNEX A
(Clause 2.1)

LIST OF REFERRED INDIAN STANDARDS

<i>IS No.</i>	<i>Title</i>	<i>IS No.</i>	<i>Title</i>
199 : 1989	Textiles — Estimation of moisture, total size or finish, ash and fatty matter in grey and finished cotton textile materials (<i>third revision</i>)	1889 (Part 1) : 1976	Method for quantitative chemical analysis of binary mixtures of regenerated cellulose fibres and cotton — Part 1 Sodium zincate method (<i>first revision</i>)
460 (Part 1) : 2020	Test sieves — Specification Part 1 Wire cloth test sieves (<i>fourth revision</i>)	2508 : 2016	Polyethylene films and sheets — Specification (<i>third revision</i>)
1397 : 2020	Kraft paper for packing and wrapping — Specification (<i>third revision</i>)	3751 : 1993	Textiles — Heavy cee jute cloth — Specification (<i>first revision</i>)
1398 : 1982	Specification for packing paper, water-proof, bitumen laminated	4905 : 2015	Random sampling and randomization procedures (<i>first revision</i>)

ANNEX B*(Table 1)***METHODS OF TEST****B-1 DIRT, GRIT, ETC**

B-1.1 Take cotton yarn waste about 100 g from portions of composite sample and determine its mass accurately. Spread the sample uniformly in a 1.70 mm IS Sieve [see IS 460(Part 1)]. Open the sieve on the ground or table suitably covered with a white paper. sample thoroughly inside the sieve, Open out the care being taken to see that while opening no fibre falls out of the sieve. Lift the sieve and shake it horizontally 50 times, taking care that dirt, grit, etc, from the sieve falls on the white paper only, After 50 shakes, collect the dirt, grit, etc, from the paper and determine its mass accurately. Express the dirt, grit, etc, as percentage of the mass of the sample.

B-2 TEXTILE/ NON-TEXTILE IMPURITIES

B-2.1 Take cotton waste about 2 kg from portions of composite sample and determine its mass accurately. Spread the sample on a clean table

and segregate the textile/non-textile impurities manually. Determine their mass separately and express them as percentage of the mass of the sample.

B-3 SOFT WASTE

B-3.1 After opening out and shaking the sample for removing dirt, grit, etc (*see A -1*), determine the mass of clean sample. Segregate the soft waste, fluffy material manually. Determine its mass accurately and express it as a percentage of the mass of the clean sample.

B-4 COLOURED YARN

B-4.1 After opening out and shaking the sample for removing dirt, grit, etc (*see A-1*), determine the mass of clean sample. Segregate the coloured yarn waste manually and determine its mass accurately. Express it as percentage of mass of the clean sample.

ANNEX C

(Foreword)

COMMITTEE COMPOSITION

Man-Made Fibers, Cotton and their Products Sectional Committee,
TXD 31

<i>Organization</i>	<i>Representative(s)</i>
ICAR – Central Institute for Research on Cotton Technology, Mumbai	DR P. K. MANDHYAN (<i>Chairman</i>)
Ahmedabad Textile Industry's Research Association, Ahmedabad	SHRIMATI DEEPALI PLAWAT SHRI JIGAR DAVE (<i>Alternate</i>)
Association of Synthetic Fibre Industries, New Delhi	SHRI M. S. VERMA
AYM Syntex Ltd, Dadra and Nagar Haveli	SHRI ARNAB SAMANTHA SHRI SAUGATA DAS (<i>Alternate</i>)
Confederation of Indian Textile Industry, New Delhi	SHRI D. K. NAIR SHRI SHAJU MANGALAM (<i>Alternate</i>)
Consumer Guidance Society of India, Mumbai	DR SITARAM DIXIT DR M. S. KAMATH (<i>Alternate</i>)
Cotton Association of India, Mumbai	SECRETARY
Defence Materials and Stores Research and Development Establishment, Kanpur	SHRI ASHOK KUMAR YADAV SHRI BISWA RANJAN DAS (<i>Alternate</i>)
Grasim Industries Limited, Vadodara	SHRI AJAY SARDANA DR ROHITASVA KUMAR (<i>Alternate</i>)
ICAR – Central Institute for Research on Cotton Technology, Mumbai	DR SENTHIL KUMAR DR A ARPUTHARAJ (<i>Alternate</i>)
JCT Limited, Phagwara	SHRI KHUSHWINDER SINGH DHILLON SHRI ARWINDER SINGH (<i>Alternate</i>)
North India Textile Mills Association, Chandigarh	SHRI SANJAY GARG SHRI SIDHARTHA KHANNA (<i>Alternate</i>)
Northern India Textile Research Association, Ghaziabad	SHRI SANJEEV SHUKLA SHRIMATI NEHA KAPIL (<i>Alternate</i>)
Office of Textile Commissioner, Mumbai	SHRI SOURABH KULKARNI SHRI PRANAV PARASHAR (<i>Alternate</i>)

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Textile Committee, Mumbai	SHRI J. D. BARMAN SHRI P. N. S. SIVAKUMAR (<i>Alternate</i>)
The Bombay Textile Research Association, Mumbai	SHRI R. A. SHAIKH SHRIMATI PRAGATI KULKARNI (<i>Alternate</i>)
The Cotton Corporation of India Ltd, Navi Mumbai	SHRI P. N. PILLEWAR SHRI V. K. SINHA (<i>Alternate</i>)
The Cotton Textile Export Promotion Council, Mumbai	SHRI SIDDARTHA RAJGOPAL
The Southern India Mills Association, Coimbatore	SHRI D. SURESH ANAND KUMAR
The Synthetic & Rayon Textile Export Promotion Council, Mumbai	SHRI S. BALARAJU
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